

NetWitness[®] Platform

Version 12.4.1.0

UEBA Standalone Installation Guide

Contact Information

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Introduction

NetWitness® UEBA standalone installation is designed to support other security tools such as Security Information and Event Management (SIEM). It allows users of a third-party SIEM solutions to leverage NetWitness for UEBA.

NetWitness® UEBA standalone installation includes:

1. NetWitness Admin Server
2. NetWitness Log Hybrid
3. NetWitness UEBA

Note: NetWitness® UEBA standalone installation supports up to 100,000 users on a single running instance. If you have more than 100,000 users, contact Customer Support.

Windows Log Sources

NetWitness UEBA standalone installation natively supports the following Windows log sources:

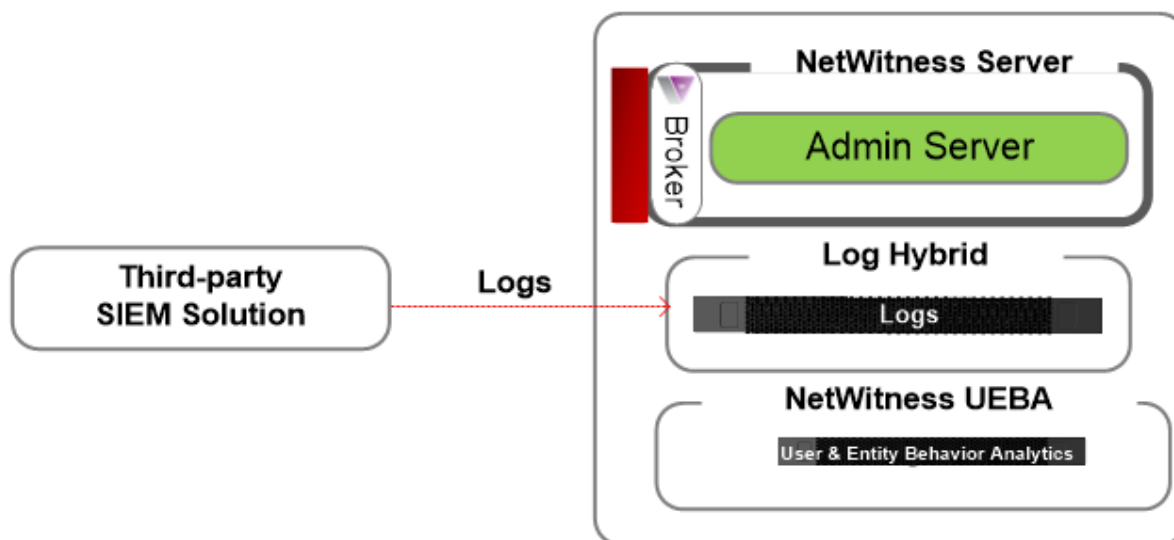
- Windows Active Directory
- Windows Logon and Authentication Activity
- Windows File Servers
- Windows Remote Management

For more information, see the "NetWitness UEBA Use Cases for Windows Logs" topic in the *NetWitness UEBA User Guide*.

NetWitness UEBA Standalone Installation

This section contains a high-level UEBA standalone installation diagram and a list of NetWitness UEBA ports.

The following diagram illustrates the NetWitness UEBA standalone installation.



Note:

- UEBA connects to the Broker or Log Hybrid host.
- To configure the Log Hybrid for logs from a third-party SIEM, contact your RSA Account Manager.

UEBA Host and Service Ports

| Source Host | Destination Host | Destination Ports | Comments |
|-------------------|------------------|--|--|
| UEBA Server | NW Server | TCP 443 | NetWitness Update Repository |
| UEBA Server | NW Server | TCP 56003 (SSL), 50003 (Non-SSL), 50103 (REST) | Broker Application Ports |
| UEBA Server | NW Server | TCP 56005 (SSL), 50005 (Non-SSL), 50105 (REST) | Log Hybrid, Concentrator Application Ports |
| Admin Workstation | UEBA Server | 443 | UEBA Monitoring |
| Admin Workstation | UEBA Server | 22 | SSH |
| Admin Workstation | UEBA Server | 8100 | Airflow UI |

System Requirements

You can run the NetWitness® UEBA standalone installation as follows:

- NetWitness Physical Hosts (software running on hardware supplied by NetWitness)
 - Install physical hosts and connect to the network as described in the NetWitness® Platform Hardware Setup Guides and the *NetWitness® Platform Physical Host Installation Guide 12.4.1 version*.
 - Set up licensing for NetWitness Platform as described in the *NetWitness® Platform Licensing Guide*.
- On-Premises (On-Prem) Virtual Hosts (Software Only provided by NetWitness)

Physical Host Hardware Specifications

You must install the NetWitness UEBA host on the S6 (Dell R640 hardware).

Series 6 (DELL R640) SPECIFICATIONS

| Specification | Capacity |
|-------------------------------|---|
| Host Type | UEBA |
| Model | Dell PowerEdge R640 |
| Processor Type | Intel Xeon Gold 6126 |
| Processor Speed | 2.6Ghz |
| Cache | 19.25M Cache |
| # of Processors | 2 |
| # of Cores | 12 Cores per Processor |
| # of Threads | 24 Threads per Processor |
| Series 6 | 2 X 1TB NL-SAS 7.2K |
| Hard Drives | 4 X 2.4TB SAS 10K |
| Field replaceable | <u>Total - 6 Drives</u> |
| Hot swappable | Slots 0-1: 1TB Slots 2-5: 2.4TB |
| Memory | 256GB 8 * 32GB RDIMM 2133MT/s |
| Storage Controllers | External PERC H840, Internal PERC H740P |
| Network Interface Card | Intel X710 DP 10Gb DA/SFP+, + 1350 DP 1Gb Ethernet, Network Daughter Card |

| Specification | Capacity |
|---------------------------------|---|
| Power | |
| PSU | Dual, Hot-plug, Redundant Power Supply (1+1), 1100 W AC |
| BTU/hr | 4100 BTU/hr (Maximum) |
| Voltage | 100-240 V AC, auto-ranging |
| Current | 12 A - 6.5 A |
| Form Factor | |
| | 1U, full depth |
| Weight (approximate) | |
| | 21.9 kg (48.28 lbs) |
| Dimensions (approximate) | |
| | With bezel: 482.0 mm (18.97 in) [w] x 808.51 mm (31.83 in) [d] x 42.8 mm (1.68 in) [h] Without bezel: 482.0 mm (18.97 in) [w] x 794.67 mm (31.29 in) [d] x 42.8 mm (1.68 in) [h] |
| Shipping Dimensions | |
| | Server boxed for shipping (includes rail kit) Height: 30.48 cm (12 inch) Width: 104.14 cm (41 inch) Depth: 64.14 cm (25.25 inch) Weight: 25.85 kg (57 lb) |
| Throughput / EPS | |
| | N/A |

* NIC Card options are available for swap with on-board daughter card or add on.

Virtual Host Specifications

Following is the recommended system requirements for a UEBA virtual host.

The recommended vCPU specification for UEBA is Intel Xeon CPU @2.59 Ghz.

| CPU | Memory | Reserved Memory Allocation | Disk Requirements for /var/netwitness Partition | Read IOPS | Write IOPS |
|----------|--------|----------------------------|--|-----------|------------|
| 32 cores | 256GB | 192GB | <ul style="list-style-type: none"> Storage: 1.5 TB Provisioning: Thick | 500 | 500 |

IMPORTANT:

- You must reserve all the resources allocated to UEBA on the VM server. For example, if a user has a 2.1GHz CPU, then 32CPUs * 2.1GHz = 67.2GHz or 67200MHz must be reserved.
- The /var/netwitness partition must be mounted on a **1.5 TB** Thick-provisioned disk for storage usage.

Note: NetWitness recommends that you only deploy UEBA on a virtual host if your log collection volume is low. If you have a moderate to high log collection volume, NetWitness recommends that you deploy UEBA on the physical host.

Installation Media

Installation media are in the form of OVA packages, which are available for download and installation from Download Central. As part of your order fulfillment, NetWitness gives you access to the OVA.

Installation Tasks

This topic contains the tasks you must complete to install NetWitness UEBA standalone installation.

Note: Download or make sure you have access to the *Physical Host Installation Guide for Version 12.4.1* before beginning the tasks. Go to the [NetWitness All Versions Documents](#) page and find NetWitness Platform guides to troubleshoot issues.

For Physical Hosts:

You need to complete the following tasks in the order shown below.

[Task 1. Install 12.4.1 on the NetWitness Server Host](#)

[Task 2. Install 12.4.1 Log Hybrid Host](#)

[Task 3. Install and Configure NetWitness® UEBA](#)

Task 1. Install 12.4.1 on the NetWitness Server Host

For the NetWitness Server (NW Server), this task:

- Creates a base image.
- Sets up the 12.4.1 NW Server host.

For more information on how to install the NetWitness Server host, see "Install 12.4.1 on the NetWitness Server (NW Server) Host" section in the *Physical Host Installation Guide for Version 12.4.1*. Go to the [NetWitness All Versions Documents](#) page and find NetWitness Platform guides to troubleshoot issues.

Task 2. Install 12.4.1 Log Hybrid Host

For a non-NW Server host, this task:

- Creates a base image.
- Sets up the 12.4.1 non-NW Server host or Log Hybrid.

For more information on how to install the Log Hybrid host, see "Task 2 - Install 12.4.1 on Other Component Hosts" section in the *Physical Host Installation Guide for Version 12.4.1*. Go to the [NetWitness All Versions Documents](#) page and find NetWitness Platform guides to troubleshoot issues.


Task 3. Install and Configure NetWitness® UEBA

To set up NetWitness UEBA, you must install and configure the NetWitness UEBA service.

The following procedure shows you how to install the NetWitness UEBA service on a NetWitness UEBA Host Type and configure the service.



1. Complete steps 1 - 14 under "Task 2 - Install 12.4.1 on Other Component Hosts" in "Installation Tasks" of the *NetWitness Platform Physical Host Installation Guide for Version 12.4.1*. Go to the [NetWitness All Versions Documents](#) page and find NetWitness Platform guides to troubleshoot issues.

Note: The Kibana and Airflow webserver User Interface password is the same as the deploy_admin password. Make sure that you record this password and store it in a safe location.

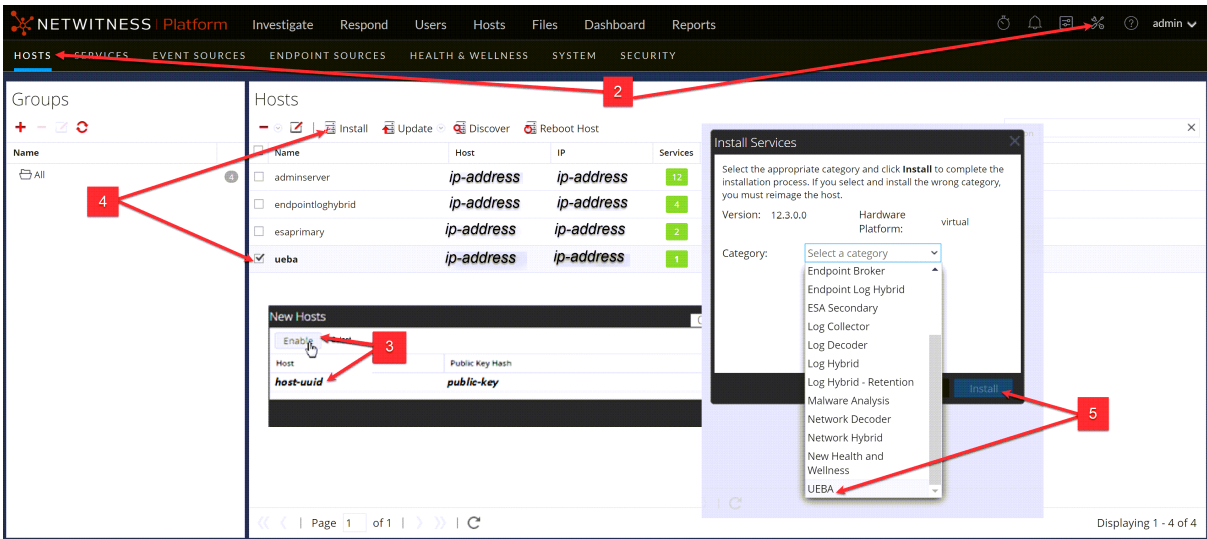
2. Log in to the NetWitness Platform and go to  (Admin) > Hosts.
The New Hosts dialog is displayed with the Hosts view grayed out in the background.

Note: If the New Hosts dialog is not displayed, click **Discover** in the **Hosts** view toolbar.

3. Select the host in the **New Hosts** dialog and click **Enable**.
The New Hosts dialog closes and the host is displayed in the Hosts view.

4. Select that host in the **Hosts** view (for example, UEBA) and click  **Install** .
- The Install Services dialog is displayed.

5. Select the **UEBA** Host Type and click **Install**.



6. Make sure that the UEBA service is running.
7. Complete licensing requirements for NetWitness UEBA.

See the *NetWitness Platform 12.4.1 Licensing Management Guide* for more information. Go to the [NetWitness All Versions Documents](#) page and find NetWitness Platform guides to troubleshoot issues.

Note: NetWitness Platform supports the User and Entity Behavior Analytics License (UEBA). This license is used based on the number of users. The Out-of-the-Box Trial License is a 90-day trial license. In case of UEBA licenses, the 90-day trial period begins from the time the UEBA service is deployed on the NetWitness Platform product.

Configure NetWitness UEBA

To start running UEBA:

1. Define the following parameters: data schemas, data source (NetWitness Broker or Concentrator) and start date.

- a. Define UEBA schemas:
Choose schemas from the following list:




AUTHENTICATION, FILE, ACTIVE_DIRECTORY, PROCESS, REGISTRY and TLS.

Note: The TLS packet requires adding the hunting package. For more information regarding events that each schema contains, see the *NetWitness UEBA Configuration Guide*.

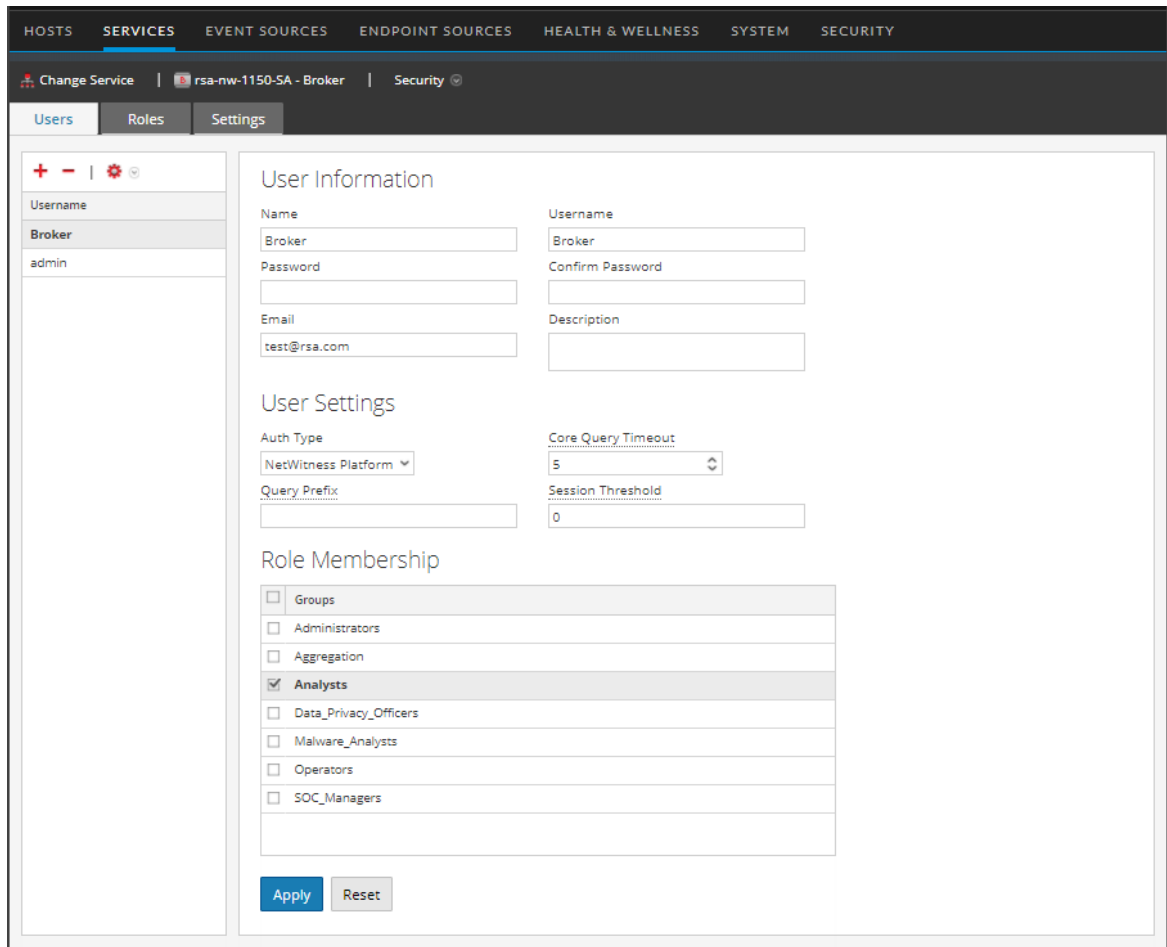
- b. Define the data source:
If your deployment has multiple Concentrators, we recommend that you assign a Broker at the top of your deployment hierarchy for the NetWitness UEBA data source.
- c. Define the UEBA start-date:

Note: The selected start date must contain events from all configured schemas.

NetWitness recommends that the UEBA start date is set to 28 days earlier than the current date. For UEBA systems that intend to process TLS data, you must make sure that the start date is set to no later than 14 days earlier than the current date.

2. . Create a user account for the data source (Broker or Concentrator) to authenticate to the data.
 - a. Log in to the NetWitness Platform.
 - b. Go to  (Admin) > **Services**.
 - c. Locate the data source service (Broker or Concentrator).
Select that service, and select   (**Actions**) > **View** > **Security**.
 - d. Create a new user and assign the “Analysts” role to that user.

The following example shows a user account created for a Broker.



3. SSH to the NetWitness UEBA server host.
4. (For Virtual Machines Only) Set the appropriate parallelism value:
If the UEBA system runs on VM, update the airflow parallelism value to be 64 by running the following command:

```
sed -i "s|parallelism = 256|parallelism = 64|g" /var/netwitness/presidio/airflow/airflow.cfg
```
5. Submit the following commands with the above parameters that you already defined.

```
/opt/rsa/saTools/bin/ueba-server-config -u <user> -p <password> -h <host> -o <type> -t <startTime> -s <schemas> -v -e <argument>
```

Where:

| Argument | Variable | Description |
|----------|----------|---|
| -u | <user> | User name of the credentials for the Broker or Concentrator instance that you are using as a data source. |

| Argument | Variable | Description |
|----------|-------------|---|
| -p | <password> | <p>Password of the credentials for the Broker or Concentrator instance that you are using as a data source. The following special characters are supported in a password.</p> <pre>!"#\$%&()*+,-:;<=>?@[\\]^_`{ }</pre> <p>If you want to include a special character or special characters, you must delimit the password with an apostrophe sign, for example:</p> <pre>sh /opt/rsa/saTools/bin/ueba-server-config -u brokeruser -p '!UHfz?@ExMn#\$' -h 10.64.153.104 -t 2018-08-01T00:00:00Z -s 'AUTHENTICATION FILE ACTIVE_DIRECTORY TLS PROCESS REGISTRY' -o broker -v</pre> |
| -h | <host> | IP address of the Broker or Concentrator used as the data source. Currently, only one data source is supported. |
| -o | <type> | Data source host type (broker or concentrator). |
| -t | <startTime> | <p>Historical start time as of which you start collecting data from the data source in YYYY-MM-DDTHH-MM-SSZ format (for example, 2018-08-15T00:00:00Z).</p> <div style="border: 1px solid green; padding: 5px;"> <p>Note: The script interprets the time you enter as UTC (Coordinated Universal Time) and it does not adjust the time to your local time zone.</p> </div> |
| -s | <schemas> | Array of data schemas. If you want to specify multiple schemas, use a space to separate each schema (for example, AUTHENTICATION FILE ACTIVE_DIRECTORY PROCESS REGISTRY TLS). |
| -v | | verbose mode. |
| -e | <argument> | <p>Boolean Argument. This enables the UEBA indicator forwarder to Respond.</p> <div style="border: 1px solid green; padding: 5px;"> <p>Note: If your NetWitness deployment includes an active Respond server, you can transfer NetWitness UEBA indicators to the Respond server and create incidents by enabling the indicator forwarder, from this data. For more information on how to enable the NetWitness UEBA incidents aggregation, see Installation Tasks.</p> </div> |

6. Set the appropriate "Boot Jar Pools" slots:

- **Physical Appliance:** Update the `spring_boot_jar_pool` slots to be 18.
 - **Virtual Appliance:** If the UEBA system is running on VM, update the `spring_boot_jar_pool` and the `retention_spring_boot_jar_pool` slots values to 5.
To update the “Spring Boot Jar Pools” slots, Go to the Airflow main page, tap the “Admin” tab at the top bar and tap “Pools”.
- a. To access the Airflow UI, go to `https://<UEBA_host>/admin` and enter the credentials.
 - User: admin
 - Password: The environment deploy admin password.
 - b. Click on the pencil mark of the polls to update the slot values.



Enable Access Permission for the NetWitness UEBA User Interface

After you install NetWitness UEBA standalone 12.4.1, you need to assign the UEBA_Analysts and Analysts roles to the UEBA users. For more information, see 'Assign User Access to UEBA' topic in the *NetWitness UEBA Configuration Guide*. After this configuration, UEBA users can access the **Investigate > Users** view.

Note: To complete NetWitness UEBA configuration according to the needs of your organization, See the *NetWitness UEBA Configuration Guide*.

For Virtual Hosts

You must complete the following tasks in the order shown below.

[Task 1. Install 12.4.1 on the NetWitness Server Host](#)

[Task 2. Install 12.4.1 Log Hybrid Host](#)

[Task 3. Install and Configure NetWitness® UEBA](#)

Task 1. Install 12.4.1 on the NetWitness Server Host

On the host you have deployed for the NetWitness Server (NW Server), this task installs:

- The 12.4.1 NW Server environmental platform.
- The NW Admin Server.
- A repository with the RPM files required to install the other functional components or services.

For more information on how to install the NetWitness Server host, see "Task 1- Install 12.4.1 on the NW Server Host" section in the *Virtual Host Installation Guide for Version 12.4.1*. Go to the [NetWitness All Versions Documents](#) page and find NetWitness Platform guides to troubleshoot issues.

Task 2. Install 12.4.1 Log Hybrid Host

Complete the following tasks on a non-NW Server host:

- Install the 12.4.1 environmental platform.
- Apply the 12.4.1 RPM files to the service from the NW Server Update Repository.

Note: You must install the Log Hybrid host.

For more information on how to install the non-NetWitness Server host, see "Task 3 - Install 12.4.1 on Other Component Hosts" section in the *Virtual Host Installation Guide for Version 12.4.1*. Go to the [NetWitness All Versions Documents](#) page and find NetWitness Platform guides to troubleshoot issues..

Task 3. Install and Configure NetWitness® UEBA

Prerequisite: Increase Memory for Virtual Deployment

Virtual Machines are deployed with approximately 104 GB in the storage mount by default. To install NetWitness UEBA, you must increase the storage space in your virtual environment to at least 800 GB.

To set up NetWitness UEBA, you must install and configure the NetWitness UEBA service.

The following procedure shows you how to install the NetWitness UEBA service on a NetWitness UEBA Host Type and configure the service.

1. Complete steps 1 - 15 for Virtual Hosts under "Task 3 - Install 12.4.1 on Other Component Hosts" in "Installation Tasks" of the *NetWitness Platform Virtual Host Installation Guide for Version 12.4.1*. Go to the [NetWitness All Versions Documents](#) page and find NetWitness Platform guides to troubleshoot issues.

Note: The Kibana and Airflow webserver User Interface password is the same as the deploy admin password. Make sure that you record this password and store it in a safe location.

2. Complete steps 2 - 9 under [Task 3. Install and Configure NetWitness® UEBA](#).

Post Installation Task

Set a user with privileges to access the UEBA Pages

After you install NetWitness UEBA standalone 12.4.1, you need to assign the **UEBA_Analysts** and **Analysts** roles to the UEBA users. For more information, see *NetWitness UEBA Configuration Guide*.